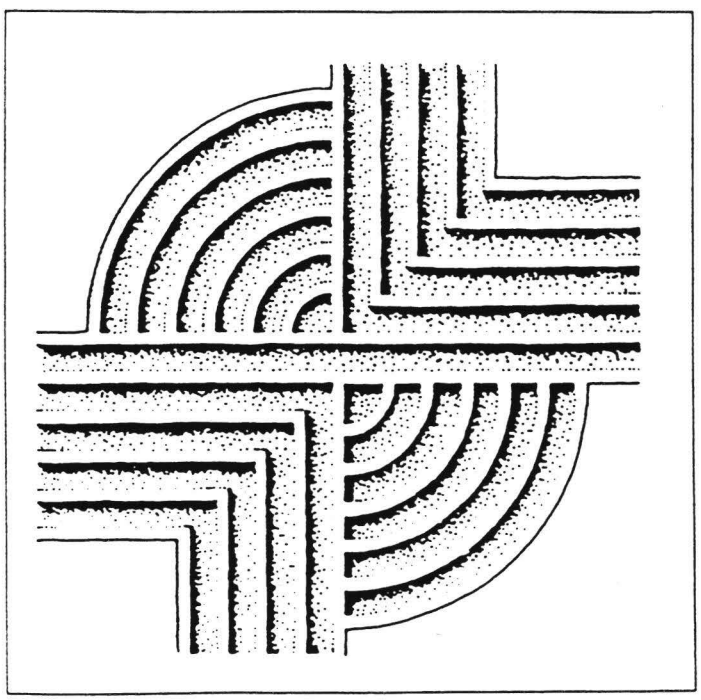
INSPECTION REPORT OF CONSTRUCTION RELATED ACTIVITIES AT ST. QUEUNTENS PLANTATION (38BU968), WALLING GROVE, BEAUFORT COUNTY, S.C.



CHICORA RESEARCH CONTRIBUTION 206

INSPECTION REPORT OF CONSTRUCTION RELATED ACTIVITIES AT ST. QUEUTENS PLANTATION (38BU968), WALLING GROVE, BEAUFORT COUNTY, S.C.

Prepared By:
Michael Trinkley, Ph.D.

Prepared For:
Dr. Wayne Beam
PO Box 11863
Columbia, South Carolina 29211

CHICORA RESEARCH CONTRIBUTION 205

Chicora Foundation, Inc.
P.O. Box 8664 ▪ 861 Arbutus Drive
Columbia, South Carolina 29202-8664
803/787-6910
Email: chicora1@aol.com

January 17, 1997

This report is prepared on permanent, recycled paper ∞

ABSTRACT

The initial archaeological survey of St. Queuntens Plantation in the Walling Grove Subdivision was conducted by Chicora Foundation in 1989. As a result of that work the plantation complex (38BU968) was determined eligible for listing on the National Register of Historic Places and a Memorandum of Agreement was executed between Walling Grove and the S.C. Coastal Council (today the Office of Ocean and Coastal Resource Management).

Chicora Foundation was recently contacted by a representative of the owner on one lot who had begun construction within the National Register eligible site and asked to evaluate the impact of this construction on the site. Work had been stopped on construction as a result of OCRM being notified of the construction within an area allegedly protected by the Memorandum of Agreement.

This report briefly reviews the original study and reports on a one day examination of the site in question. A surface investigation was conducted, followed by a detailed evaluation of construction activities. Finally, 22 shovel tests were excavated in the area of the major construction impact. Observations are provided on the density of the site in the construction area and probable impacts on the archaeological remains. Also evaluated are the anticipated impacts should construction continue.

TABLE OF CONTENTS

List of Figures iv

Introduction 1
Background and the Site Area 1
Previous Investigations 1

Field Investigation and Results 7
Methods 7
Initial Pedestrian Survey 8
Building Construction Methods 12
Shovel Testing 14

Conclusions 23
Extent of the Site 23
Extent of the Impact 23
Extent of Future Impact 24

Sources Cited 27

LIST OF FIGURES

Figure		
1.	Location of Walling Grove on the Beaufort USGS topographic map	2
2.	Portion of the Hendrix lot plat	3
3.	Portion of the original 38BU968 site plan	5
4.	Map of the portion of 38BU968 on Mr. Walter Hendrix's lot	9
5.	Utility line along east edge of the lot	10
6.	Ground surface along utility line trench	10
7.	View of lot from Old Plantation Drive	11
8.	View of foundations	11
9.	View of tabby blocks and sand pile area	13
10.	View of continuous footing	13
11.	Poured slab garage	15
12.	View of rear lot	15
13.	Artifact density map	18
14.	Brick and tabby rubble density map	19
15.	Shell density map	20

LIST OF TABLES

Table		
1.	Artifacts recovered from shovel testing the main house area	17

INTRODUCTION

Background and the Site Area

The Walling Grove Plantation tract is situated at the north end of Ladies Island is dominated by the Coosaw River to the north and Broomfield Creek (previously known as Johnsons Creek) to the west. The topography on the tract tends to be flat, with the western edge characterized by a gradual slope to the saltwater marshes of Broomfield Creek. The northern edge of the tract consists of higher elevations, averaging between 8 and 17 feet above mean sea level (AMSL) (Figure 1).

The northern end of the tract, along the Coosaw River, consists of the excessively well drained Wando and moderately well drained Seabrook soils. This northern portion, in the immediate vicinity of Walling Grove Road and Old Plantation Drive, consists of a mixture of grass, brushy thickets, and overstory trees such as palmetto, oak, and cedar. Its florestics have been significantly altered by development activities dating at least back to the 1950s.

Today there are two ca. 1950 ranch style houses on what are called Lots 2 and 16 which were built in the 1950s. Between these two extant houses and their associated lots is Lot 1, owned by Walter Hendrix. This lot, shown by a plat prepared by Gasque and Associates dated November 14, 1996 and identified as Lady Island Tax Map 200-005-00B-0001, is roughly rectangular (Figure 2).

Today Lot 1 exhibits vegetation and topography very similar to those either side. The soils are sandy and well drained. The topography along Old Plantation Drive, exhibits an east-west tending ridge about 15 to 16 feet AMSL, which strongly slopes to the north, where much of the lot has elevations between 8 and 11 feet AMSL. Vegetation is characterized by the same grassy lawn interspersed with thickets and occasional trees. The only substantial difference is that construction has begun on a house on the southern third of the lot, close to Old Plantation Drive. This construction is generally shown on the Gasque plat reproduced here as Figure 2. Lot 1 is also the location of tabby ruins associated with St. Queuntens Plantation, recorded as 38BU968.

On January 2, 1997 I was contacted by Dr. Wayne Beam, in his capacity as a representative of the property owner. He indicated that the owner had possibly infringed on the plantation site in his construction and that work had been halted by the Office of Ocean and Coastal Resource Management (OCRM) pending a review by the State Historic Preservation Office. He asked that Chicora conduct what might be called a reconnaissance investigation of the site to evaluate the impact of the construction activity on the site.

At Dr. Beam's instruction I initially attempted to obtain a copy of the lot plat from Mr. Fritz Aichele at OCRM. Mr. Aichele's plat, however, had been faxed once and he felt that it would not be adequate. He suggested that I contact Gasque and Associates to obtain a plat directly from them. Several calls were made in order to obtain a plat, which finally arrived by mail on January 14.

The site was visited on Thursday, January 16. Approximately 6.5 hours were spent on-site. During that time I spoke with both Mr. Walter Hendrix and an associate, as well as an adjacent neighbor, Ms. Dorothy Glace. The nature of the site study and its results are discussed in a following section.

Previous Investigations

The initial archaeological survey of the Walling Grove Phase 1 development was conducted by Chicora Foundation in 1989 (Trinkley 1989). As a result of that study several archaeological sites were identified, including what

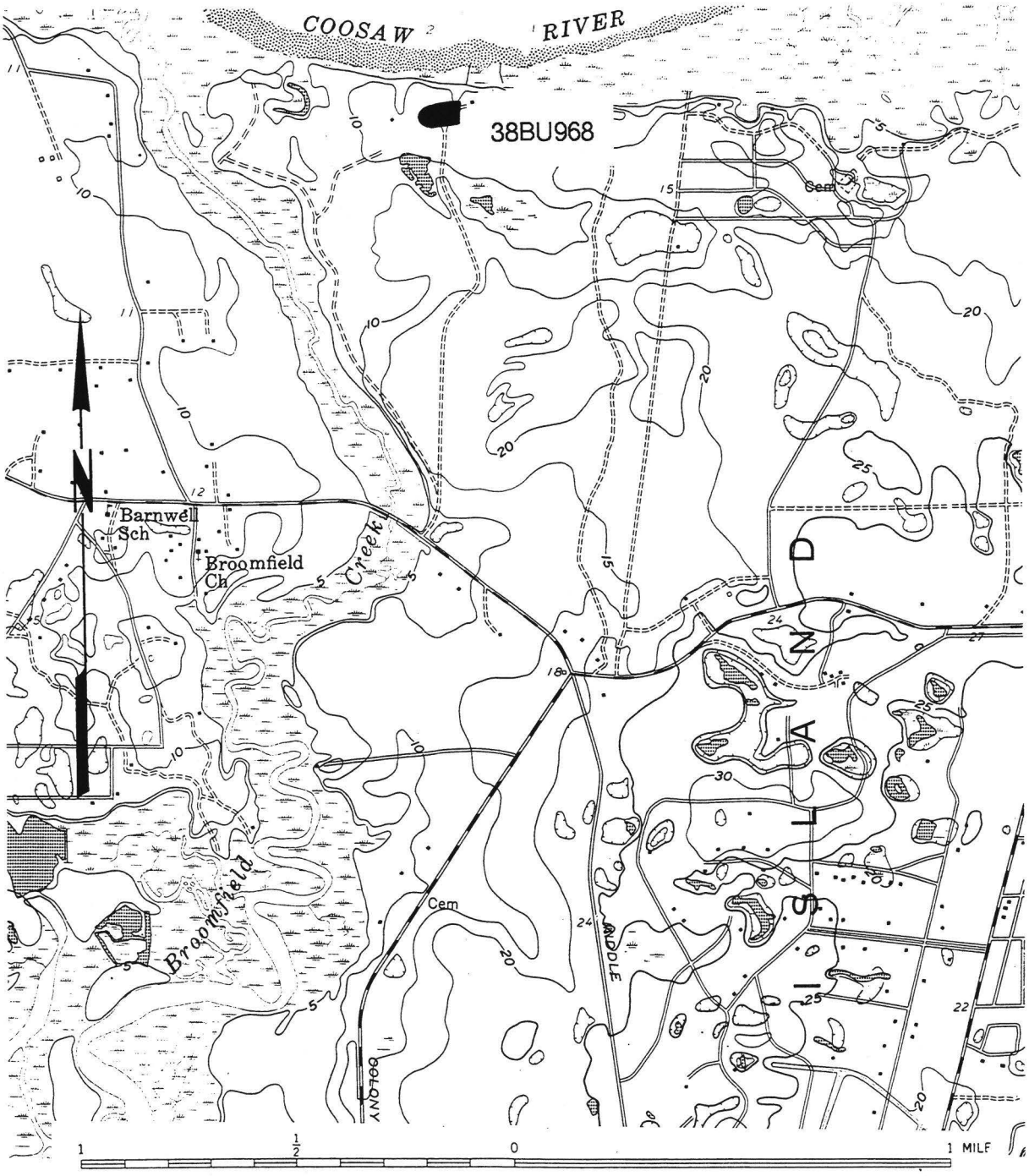


Figure 1. Location of Walling Grove and 38BU968 on the Beaufort 7.5' USGS topographic map.

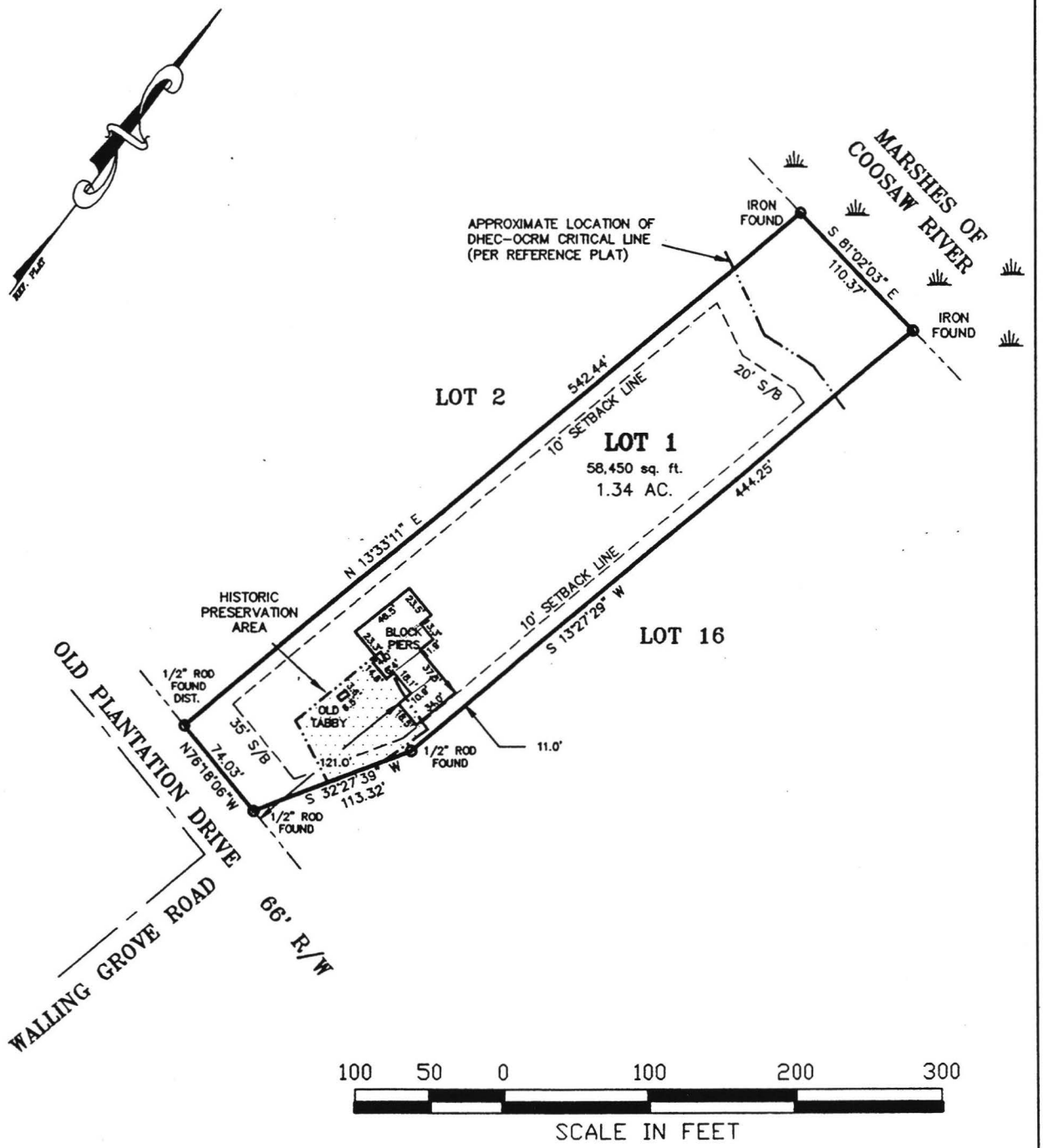


Figure 2. A portion of the Gasque and Associates "Foundation Survey Prepared for Walter Hendrix," Job 8702, dated November 14, 1996.

appeared to be the main complex for St. Queuntens Plantation, 38BU968.

This plantation appears to date from the early eighteenth century when it was owned by Henry Quintyne and later by William Bull in the mid-eighteenth century, although the best data comes from the early nineteenth century, at which time the plantation was owned by Joseph and Sarah Fickling (Trinkley 1989:26). An 1820 return reveals that the Ficklings would probably be considered somewhere in the middle bracket of planters – not especially wealth, but certainly not yeoman farmers or even "small" planters. In this respect, they probably typified the majority of Beaufort planters for the period. The plantation disappears from the historic records until after the Civil War, when it was purchased and apparently continued to be operated as a cotton plantation (Trinkley 1989:30-32).

The plantation was encountered in both surface surveys and shovel tests during the original survey. Its UTM center point was identified as E532600 N3595300 and it was found to cover an area "800 feet east-west by 300 feet north-south" (Trinkley 1989:43). Within this site, several loci or areas were identified. Some were based on concentrations of artifacts, others on the presence of architectural remains, and some on both.

Near the intersection of two dirt roads (what would become Walling Grove Road and Old Plantation Road) was "Locus A," originally recognized by presence of tabby chimney footers. This area was briefly described in the original report:

> Locus A, representing the main house, is situated between the two standing twentieth century structures [on what are today Lots 2 and 16] in an open yard area with small clumps of scrub trees. This locus was examined by Shovel Tests 67-71 and 75-78. The only above ground remains identified in this survey are two tabby blocks, approximately 3.5 feet (east-west) by 7 feet (north-south) which are oriented N10°E. These blocks are placed 30 feet apart and represent tabby supports for the two end chimneys of the main house. While not verified by this survey, it appears likely from the location of scrub tree clumps that additional tabby corner piers will be found preserved. The structure is thought to measure about 30 by 20 feet, was of frame construction, and probably dated to the late eighteenth or early nineteenth century (Trinkley 1989:43).

The site as it was identified during the original survey is shown here as Figure 3. Note that the map reveals both the site boundary, identified by the dashed line, and the approximate area of the different loci.

Materials recovered historic ceramics, Colono ware, bottle glass, glassware, tableware items, window glass, nails (both cut and wrought), construction hardware, a minie ball, a kaolin pipe fragment, and a small quantity of metal items (Trinkley 1989:Table 1). The ceramics provided a mean date of 1817 for the plantation, although both eighteenth century wares such as lead glazed slipware and white salt glazed stoneware were found in association with later nineteenth century materials such as pearlware and whiteware (Trinkley 1989:Table 2). The collection from the site was consistent with a main complex, and revealed the same span of time as suggested by the historic documentation.

The evaluation of the site, which includes all of the various loci or areas, suggested that integrity was high and that the site could address a broad range of significant research questions. Consequently, the site was recommended as eligible for inclusion on the National Register of Historic Places. The report noted that:

> It is likely that the development will adversely affect the site, through property access roads,

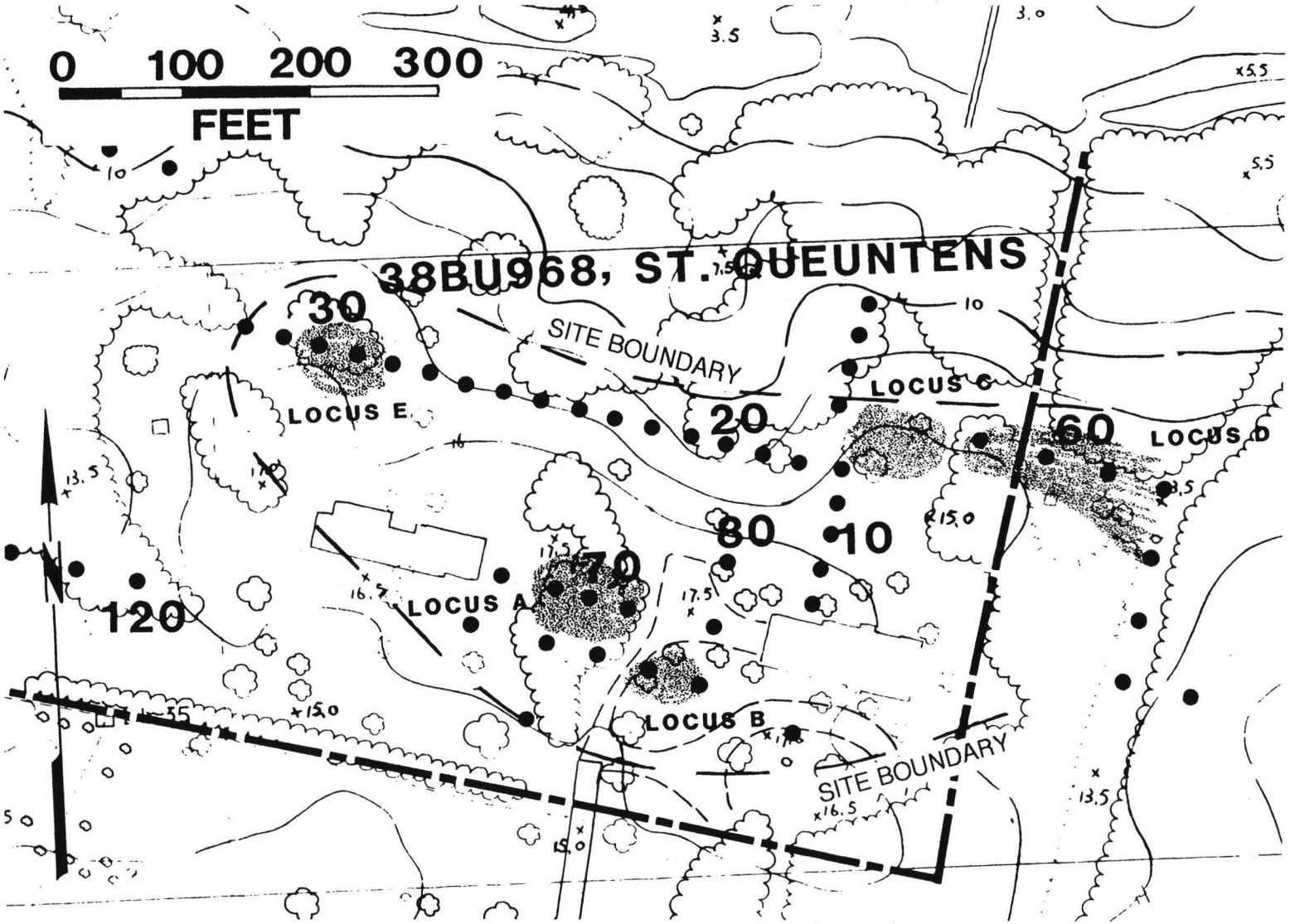


Figure 3. A portion of the Phase 1 Walling Grove development map showing the location of identified archaeological sites (adapted from Trinkley 1989:Figure 8).

> utility construction, sewer systems, and house construction. There are two options, either site preservation through green spacing, or data recovery (Trinkley 1989:47).

The study went on to describe the nature of green spacing, explaining that it *must ensure the permanent protection and integrity of the archaeological data and architectural remains.*

It is my understanding that the State Historic Preservation Office concurred with the eligibility recommendation and that a Memorandum of Agreement was entered into between Walling Grove and the South Carolina Coastal Council (now the Office of Ocean and Coastal Resource Management).

FIELD INVESTIGATION AND RESULTS

Methods

The study was conducted by the author on Thursday, January 17 between approximately 9:30 am and 4:00 pm. During this period I had the opportunity to speak with Mr. Walter Hendrix and one of his associates, as well as Ms. Dorothy Glace. Where appropriate information they provided has been integrated into these discussions, although it is clearly distinguished from my own first-hand observations.

The goal of the study was to evaluate the impact of construction-related activities on that portion of St. Queuntens Plantation situated on Mr. Hendrix's lot (shown in Figure 2). To accomplish this goal the study consisted of:

- a pedestrian survey of exposed ground areas;
- an examination of building construction methods; and
- limited shovel testing.

The pedestrian survey was conducted in order to qualitatively evaluate the amount of archaeological materials exposed by the foundation construction, other construction-related activities, and the excavation of utility lines. This was undertaken as an initial step in the survey process and was at least partially in response to Mr. Aichele's comment that during his visit he failed to observe any materials on the surface.

The examination of building construction methods was conducted in order to generally evaluate potential impacts to the archaeological resources. It is very important to understand that different disciplines view impacts very differently. "Barely scratching the surface" in the construction trades can mean something quite different than it does to an archaeologist. It was important to fully document the construction methods used at Lot 1 thus far. This was undertaken in response to my perception that some parties involved in this were not particularly familiar with the nature of construction activities.

The limited shovel testing was intended to serve several purposes. First, it would document the "average" depth to which cultural remains were found in the immediate area. This is important to know in order to evaluate potential damage. Second, it would document any evidence of disturbance in the stratigraphic profiles of the shovel tests. And third, it would provide some general information on site density. This last function was especially important since it had been suggested that the location of the house construction was in an area of low density and therefore reduced significance.

Accompanying the pedestrian survey and examination of building techniques, a series of color print photographs were taken in order to document my site observations. Many of these are reproduced in this study and are useful to understand general site layout, specific construction activities, or potential archaeological impacts.

The time allowed for this investigation, especially after time was spent with both Mr. Hendrix and Ms. Glace, did not allow complete shovel of the entire lot — an undertaking which would have been in excess of a reconnaissance survey in any event. What was possible was the excavation of two north-south transect lines, 20 feet apart, with 11 shovel tests per transect, again at 20 foot intervals.

This interval was selected since it has been found to provide the most cost-effective data concerning site density at the intra-structure level. It is far superior to 50-foot intervals and not as costly as 10-foot intervals. For the purpose of this assessment, I believe that the 20-foot interval

provides excellent preliminary data.

The two transects were placed to provide data on the area between Old Plantation Drive and the construction site, the construction site itself, and the area north of the construction site. This would allow some initial comments concerning site density. The placement of these tests, as well as a variety of additional features are shown on Figure 4. It can be seen that the shovel tests, providing data on an area about 60 by 210 feet (extrapolating coverage to 10 feet beyond the shovel test grid), cover about 20% of the entire lot (12,600 square feet of the 58,450 square feet noted on the Gasque and Associates plat).

All shovel tests were about 1 foot square and an effort was made to extend the tests to yellow sand subsoil (a goal not met in all of the tests). All fill was screened through ¼-inch mesh, with all material (including brick and tabby rubble and shell) bagged. Artifacts were subsequently counted during the cataloging process, while other materials (such as brick, tabby, and shell) were weighed and discarded.

Initial Pedestrian Survey

The macro-site setting has not substantially changed from 1989, to the best of my recollection. Vegetation, soils, topography, and general site setting all seem very familiar. The previously dirt roads have been paved and at least one additional house has been built on Old Plantation Drive west of the two original houses.

On a more lot-specific scale, however, it was clear that ground alteration had occurred. One of the first observations was that a utility line had been excavated and backfilled along the east edge of the property. This excavation begins in the vicinity of the southeast corner and extends northward along the eastern edge of the lot, terminating at a temporary electrical service (Figure 5). The open area was about 4 to 10 feet, likely including the trench, spread spoil, and roughed up areas associated with the work. No effort was made to determine the depth of the excavation, although one edition of the National Electric Code specifies that direct buried cables must be at least 24 inches deep and that rigid nonmetallic conduit approved for direct burial without concrete encapsulation must be at least 18 inches deep. This, in conjunction with the light color of the backfilled spoil, suggests that the utility line penetrated the A horizon and was laid into the yellow sand subsoil.

The disturbed area was carefully examined, with a number of artifacts observed on the surface. These were made fairly obvious by either wind or rain action. Some were pedestalled and others were beginning to become visible (Figure 6).

A grab collection of materials exposed in this utility was made during the initial pedestrian survey. About 10 minutes was spent walking this area, collecting those materials which were immediately observed. Collected were 17 specimens, including one decorated delft, four undecorated creamware, one blue edged pearlware, one blue transfer printed pearlware, one undecorated pearlware, one blue hand painted whiteware, one "black" bottle fragment, one aqua bottle fragment, five window glass fragments, and three metal fragments. Also present, but not collected, were occasional oyster shells and brick fragments. All of these remains are consistent with the initial 1989 collection from the plantation and are representative of an eighteenth to mid-nineteenth century time period.

Another immediate observation was the foundation construction in the southern quarter of the lot, about 120 feet from the road. Figure 7 provides an overview of the lot from Old Plantation Drive. The large cedar in the center of the photograph obscures the western half of the foundation, which covers most of the east-west width of the lot.

Figure 7 also reveals that most of the southern portion of the lot is in grass, with virtually no surface visibility. As a result, no artifacts were observed, or collected, from the ground surface in this area. Likewise, the photograph reveals that there is no obvious indication of construction related damage in this area immediately adjacent to Old Plantation Drive.

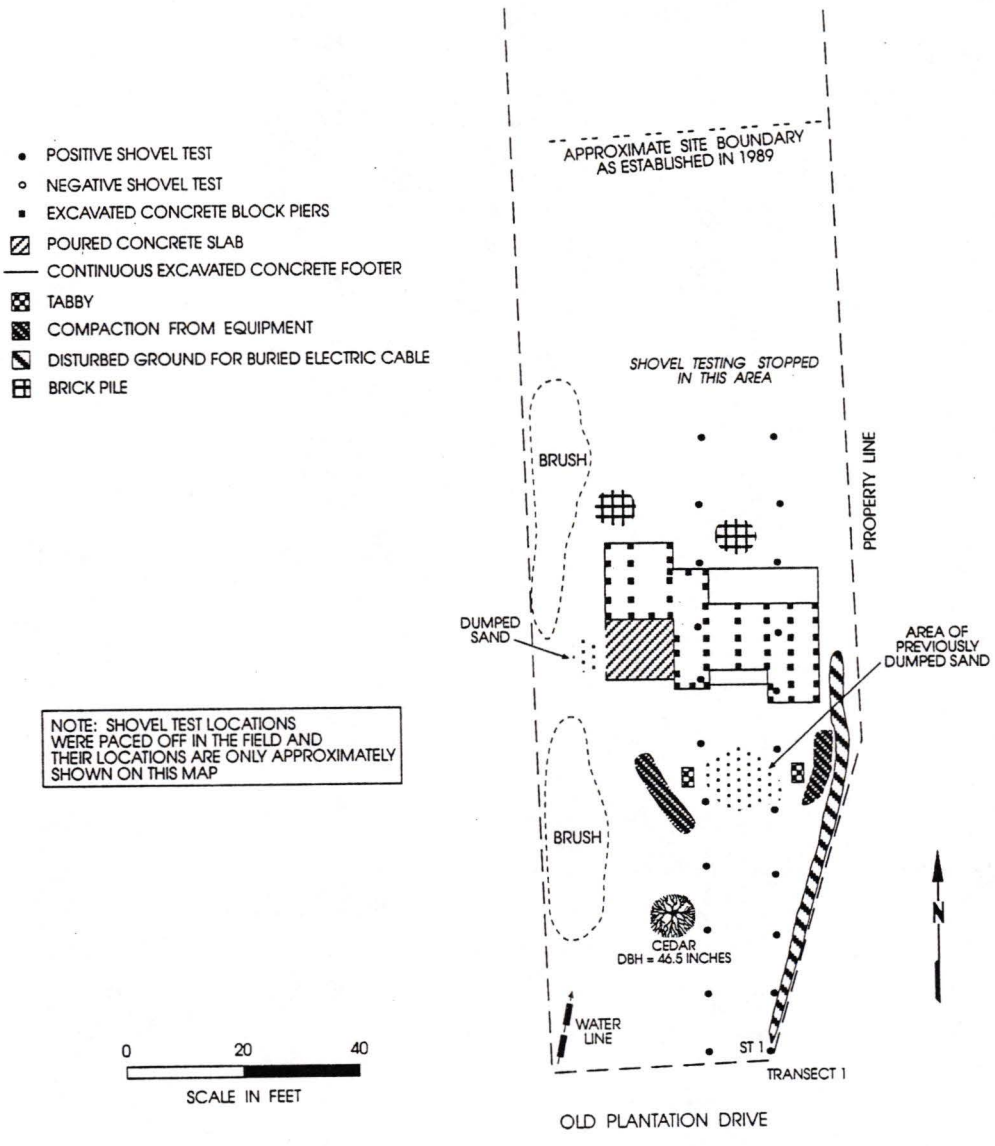


Figure 4. Sketch map of the portion of 38BU968 found on Mr. Walter Hendrix's lot at Walling Grove.

Figure 5. View of utility line along east edge of the lot, from the street to the temporary service pole.

Figure 6. View of ground surface along utility line showing bare soil and artifacts.

Figure 7. View of Mr. Hendrix's Lot 1 from Old Plantation Drive looking north, toward the Coosaw River.

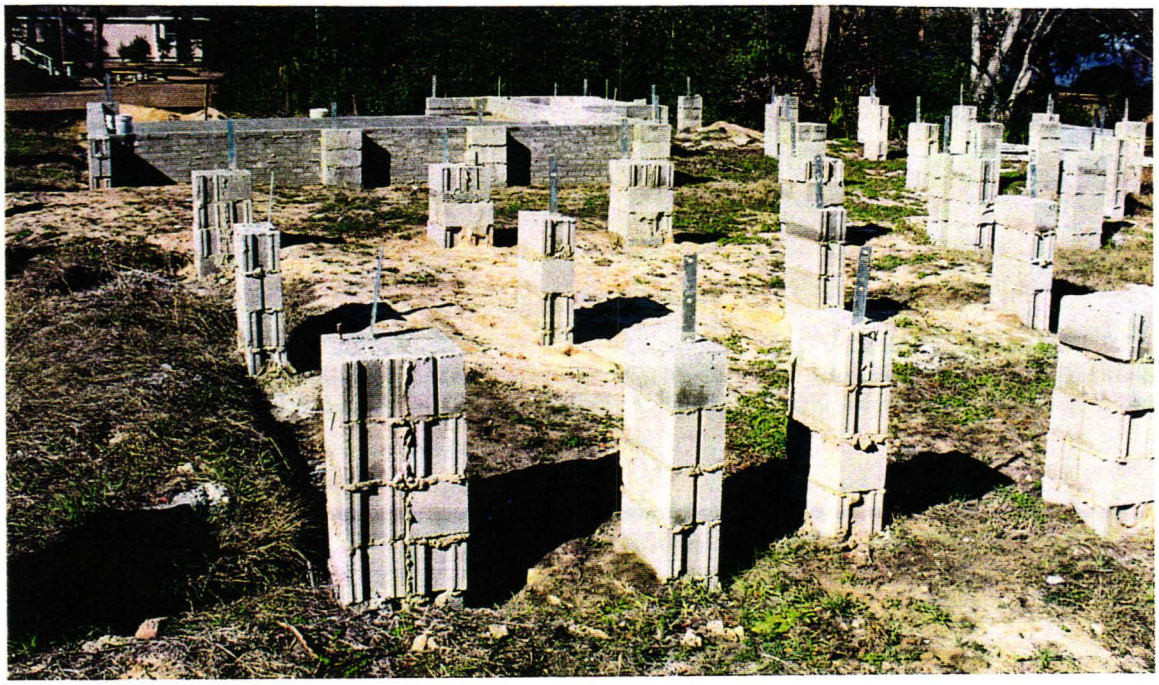


Figure 8. View of the foundations, piers, and slab from the eastern edge of Lot 1, looking to the northwest.

Figure 8 illustrates something of the foundation construction. Evident were both trenches, with a concrete footer and individually set concrete block piers. These cover an area about 92 feet east-west by 62 feet north-south. Also present was a solid concrete slab covering about 675 square feet.

As a result of this activity, there were a variety of disturbed ground areas, although some of what appears to be bare soil is actually construction sand spoil scattered in the area. Bare ground was most often found adjacent to the continuous concrete footer, representing spoil from the trench, as well as a few areas scuffed by construction activities. From the bare areas within the confines of the foundation a grab collection of 11 artifacts were recovered as the result of about 10 minutes of survey. These items include two undecorated whiteware ceramics, one Colono ware sherd, one "black" glass fragment, one brown glass fragment, and two clear glass fragments. These items, like those collected from the utility corridor, are appropriate for the plantation known to exist at this location.

Also observed at the southwest corner of the lot was a water connection, although there was no obvious sign of disturbed soil and no collection was made in this area. It is not known when this water line was laid.

Within the front yard of the house under construction are the two tabby chimney piers. Both are within about 10 to 12 feet of the front wall of the new house (see Figure 4). Figure 9 helps to place these tabby features and visualize their proximity to the house under construction.

Based on my previous estimate of house size, it is likely that the Hendrix foundations are in the immediate area of the plantation house's north wall. If there was any porch or formal entrance facing the water then it would be within the Hendrix footprint.

Figure 9 also illustrates a large smear of construction sand, varying from 0.2 to 0.4 foot in depth which covers most of the ground between the two tabby piers. Ms. Glace indicated that this was the location of a large pile of sand, which had been put there sometime early last year and removed this fall, after construction on the house had ceased. When the sand was excavated, the grass underneath was dead and had been to decay, suggesting that the time frame proposed is generally appropriate.

On either side of the tabby chimney footings are very clear ruts and compaction areas. These suggest that construction vehicles accessed the lot from Old Plantation Drive, drove up to the sand pile between the two chimney supports and then went either to the right or left. The drive area was about 4 to 5 feet of the western tabby block. The Gasque and Associates plat of the lot reveals there about 11 feet between the foundation and the east property line, and about 20 feet between the foundation and the west property line.

At the northern edge of the house there were two areas used for the storage of bricks and concrete blocks. In addition, there was a fire area, represented by loosely clustered burnt wood.

Building Construction Methods

The Hendrix foundation consists of a narrow trench, about a foot in width excavated, I would suppose to support load bearing wall both along the perimeter of the building and in several interior areas. The depth of the foundation excavations is not known, although I measured the depth from the extant ground surface to the top of the concrete pour in two locations — it ranged from about 0.5 to 1.0 foot (Figure 10). Assuming that the trench contained only 0.5 foot of concrete, this means that the excavation was from 1.0 to 1.5 feet in depth. Although I am not familiar with the building code applicable to Beaufort County, typically these extend below frost penetration and are usually no less than 12 inches below the finished grade. Consequently, excavations of 1.0 to 1.5 feet seems reasonable.

In addition to this continuous concrete footing, there were also a series of interior piers. These were built using concrete blocks, set on poured concrete footers excavated in a similar fashion to the continuous footer. Figures 4 and 8

Figure 9. View of the tabby blocks and sand pile area from the northeast corner of the garage looking to the south-southeast.

Figure 10. View of the continuous footing showing the width and depth of the excavation.

provide some indication of the number and spacing of these internal piers.

The poured concrete slab for the garage of the structure is above grade. However, Ms. Glace reported that a tree had been cut down in this location and a bulldozer used to remove the stump. The presence of a tree in this area was confirmed by Mr. Hendrix. The use of a bulldozer to grub out roots under slabs seems to be common practice since otherwise there is the potential for cracking and settling as the tree stump and roots decay. This grubbing, however, is particularly damaging to archaeological sites. I have seen large "features" created by such work. Essentially the dozer pulls or pushes up the stump and root system, and then redistributes soil to fill in the void. The equipment is then used to compact the ground the surface.

In all respects, the construction features seen on this lot are consistent with those I have observed elsewhere. I saw no evidence that an intentional effort was made to avoid archaeological remains, or that an intentional effort was made to harm the archaeological remains. By this I mean that there is no evidence that the house or construction was located to avoid close proximity to the tabby or that special efforts were taken to clearly demarcate what might be perceived as sensitive archaeological remains. At the same time, it is clear that the entire site has not been grubbed in order to remove archaeological features.

Shovel Testing

As previously explained, two transects of shovel tests were eventually excavated on Lot 1. Both were intended to run approximately north-south. Transect 1 was placed at the southeastern corner of the lot, where it would run through the eastern edge of the plantation house and through the construction site. Transect 2 was situated 20 feet to the west, again so it would run through the western edge of the plantation house and then through the foundation area. These shovel tests were only paced off — they were not laid in using a tape and compass or transit. As a result, there is some deviation in the alignment and distances. Nevertheless, they substantively accomplished the goal of exploring the outlined areas.

These tests revealed several different "typical" soil profiles. For most of the area south of the tabby ruins, the profile consists of between 1.0 and 1.5 feet of brown A horizon sand overlying a yellow sand subsoil. Toward the tabby ruins I found that the soil tended to become darker, so that the profiles evidenced a black loam which graded into a tan sand overlying the yellow subsoil.

Within the area of the tabby ruins the A horizon soil was consistently 0.8 foot in depth and consisted of a black, almost greasy, loamy sand. On Transect 1, at Shovel Test 5, the excavation was terminated on what appeared to be intact tabby. This finding is especially significant since it suggests there may be a below grade wall outlining the structure and providing support for a half-floor or basement level, with the main house situated above on the first floor. It was not, however, possible to verify this on the basis of the shovel test. In fact, it isn't even possible to determine if this tabby represents foundation or possible wall fall. It emphasizes that we know really very little about this site. But its presence further supports the previous assessment that the site's integrity is quite high.

North of the tabby, within the area of the Hendrix foundations the soils evidence disturbance to about 0.8 foot, probably representing dispersed spoil from the foundation trenches, followed by about 1.0 to 1.5 foot of brown A horizon sand over the yellow subsoil.

The shovel tests inside the Hendrix foundations provide very important information. They reveal that the depth of cultural remains is about a 1.0 to 1.5 feet. This, unfortunately, is also the anticipated depth of the continuous concrete footer excavation. Therefore, it is likely that where ever the footer, or the individual piers, were excavated, the site has been destroyed. On the other hand, the shovel tests also suggest that site damage is limited to these very specific foundation areas. There does not seem to be any consequential damage. There has not been any other excavations associated with the work, for example.

Figure 11. Poured slab garage, showing its above grade construction. It was in this area that a tree was grubbed out.

Figure 12. Standing on the southeast corner of the garage floor, looking north to the Coosaw River. Note how the lot drops off. The original site boundary was placed in the vicinity of the palmetto trees. Current testing extended about halfway between the foundation and this series of palmettos.

This, of course, does not represent the condition of remains under the 675 square foot garage. There the grubbing operations likely destroyed all site context, although this could be explored only by removing the concrete slab — far outside the scope of this investigation.

North of the foundations, the soil profile begins to dramatically deepen. Depths of 1.5 to 1.7 feet were reached without evidence of subsoil. Given the topographic setting — on the slope to the bottom adjacent to the Coosaw — it seems likely that this area was subjected to either overbank deposition or downslope erosion. Either way, it appears that the soils in this area became deeper, as evidenced by the shovel testing. Of course, additional work would need to be conducted to verify, or refine, this scenario.

The shovel tests, in addition to the information on soil profiles and site formation, also provide data on site density.

At the very simplest interpretative level, all of the shovel tests produced artifacts — this means that all of the lot area explored is within the boundaries of 38BU968 and consequently has been assessed as eligible for inclusion on the National Register of Historic Places. It's perhaps more productive to explore the density of artifacts, shell, brick, and tabby.

Artifact density may provide clues to when a site boundary is being approached, or when an area of very heavy activity is encountered. Bricks, tabby, and shells may all provide clues to different site areas — brick and tabby, of course, providing evidence of structural remains or their dispersion, with shell perhaps providing evidence of midden piles.

For the purpose of our work brick and tabby have been combined, since both are indicative of structural remains. Its likely, for example, that the tabby chimney foundations supported stacks of fired bricks. Shell which evidenced tabby or mortar fragments was also included in this architectural category, otherwise it was tabulated separately as shell. Figure 13 provides the density of artifacts, Figure 14 illustrates the density of architectural debris (brick and tabby), while Figure 15 illustrates the dispersion of shell.

Artifact density is highest in the immediate vicinity of the tabby, although Figure 13 reveals that the density is high within the entire study area. The "front yard" of the ruins evidences a density of between 3 and 13 specimens per shovel test.

The house area exhibits a higher density, with between 22 and 49 specimens recovered. The one shovel test in the southeast quadrant of the ruins in anomalous since this test revealed a solid tabby wall about 0.4 foot below the surface. As a result very little soil was actually removed from the test.

The "near rear yard" of the ruins, which also correlates with Mr. Hendrix's foundation, reveals artifact densities ranging from 8 to 15 specimens — very similar to the "front yard" range.

As we move further northward, away from the ruins, the artifact density does not drop off any appreciable amount. In the "far rear yard" artifact densities range from 2 to 21 per shovel test. Although several tests did produce relatively few artifacts, they were not contiguous and may represent anomalies. There is a fairly good chance that artifact densities remain high to the site boundary, at least an additional 60 to 80 feet north of the limits of this testing.

The artifacts recovered represent a broad range of materials. The ceramics present include delft, creamware, pearlware, whiteware, lead glazed slipware, porcelain, and stoneware. Architectural remains include both wrought and machine cut nails, window glass, and one item of architectural hardware — a butt hinge. Other recovered items included a tobacco pipe stem and a minie ball. Container glass is fairly common. Bone is surprisingly common, being found in seven of the 22 shovel tests (32%). The artifacts are itemized in Table 1.

In other words, this brief overview

Table 1.
Artifacts from Shovel Testing at Walling Grove Main House Area

Shovel	Ceramics								Container	Nails			Window	Melted	
Test	LGSW	Delft	CW	PW	WW	Porc.	Other	Burnt	Glass	HW	MC	UID	Glass	Glass	Other
Trans 1															
1				1	1						1				3 UID metal
2			1						4		2		2		
3									2			1			1 utensil handle
															1 minie ball
															2 bones
4	1		2		1		1		4		2				2 bones
5													1		1 UID metal
6		1							3	3	4	4	1	5	1 UID metal
7					1				2		7		1	2	
8	1	1			4				4						1 butt hinge
															1 UID
															1 bone
9				1					1			2	1		1 Colono
															7 UID metal
															1 bone
10					4		1		2		3				7 UID metal
															1 bone
11					1										1 UID metal
Trans 2															
1			1	1					2			1			1 UID metal
2												2			1 pipe stem
3			2		1				2	1		1			1 Colono
															1 lead shot
															1 bone
4						2			1		6		1		1 UID metal
5						1			3	1	4	7	2	31	1 UID metal
6				1				2	8	2	9		6	6	4 bones
7							1		1		3	2	2	4	2 UID metal
8				2			1		2			2	1		1 metal button
															2 UID metal
9									3		1		1		1 UID metal
10									1		1			2	
11									2				1		6 UID metal

LGSW = Lead Glazed Slipware, CW = Creamware, PW = Pearlware, WW = Whiteware, Porc. = Porcelain, HW = hand wrought, MC = machine cut

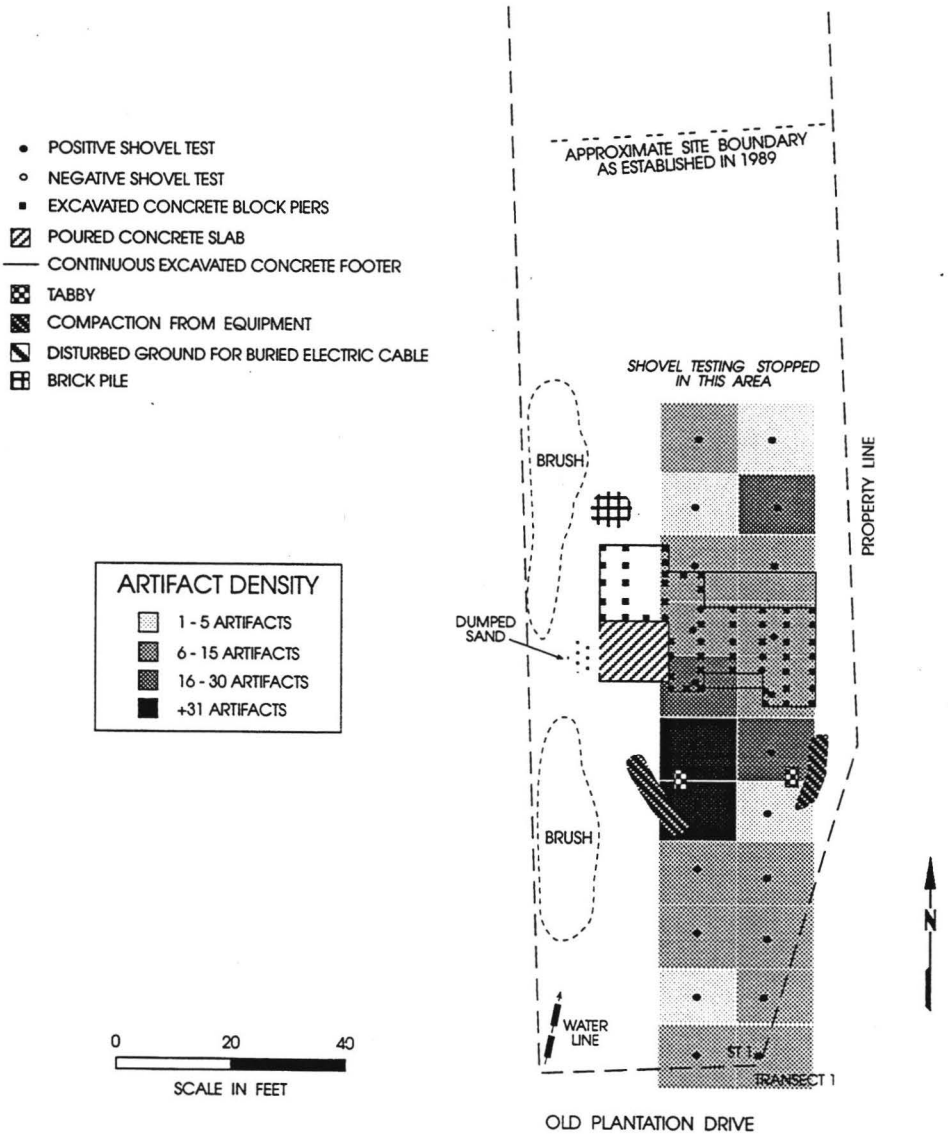


Figure 13. Artifact density in the tested area on the Hendrix lot at Walling Grove.

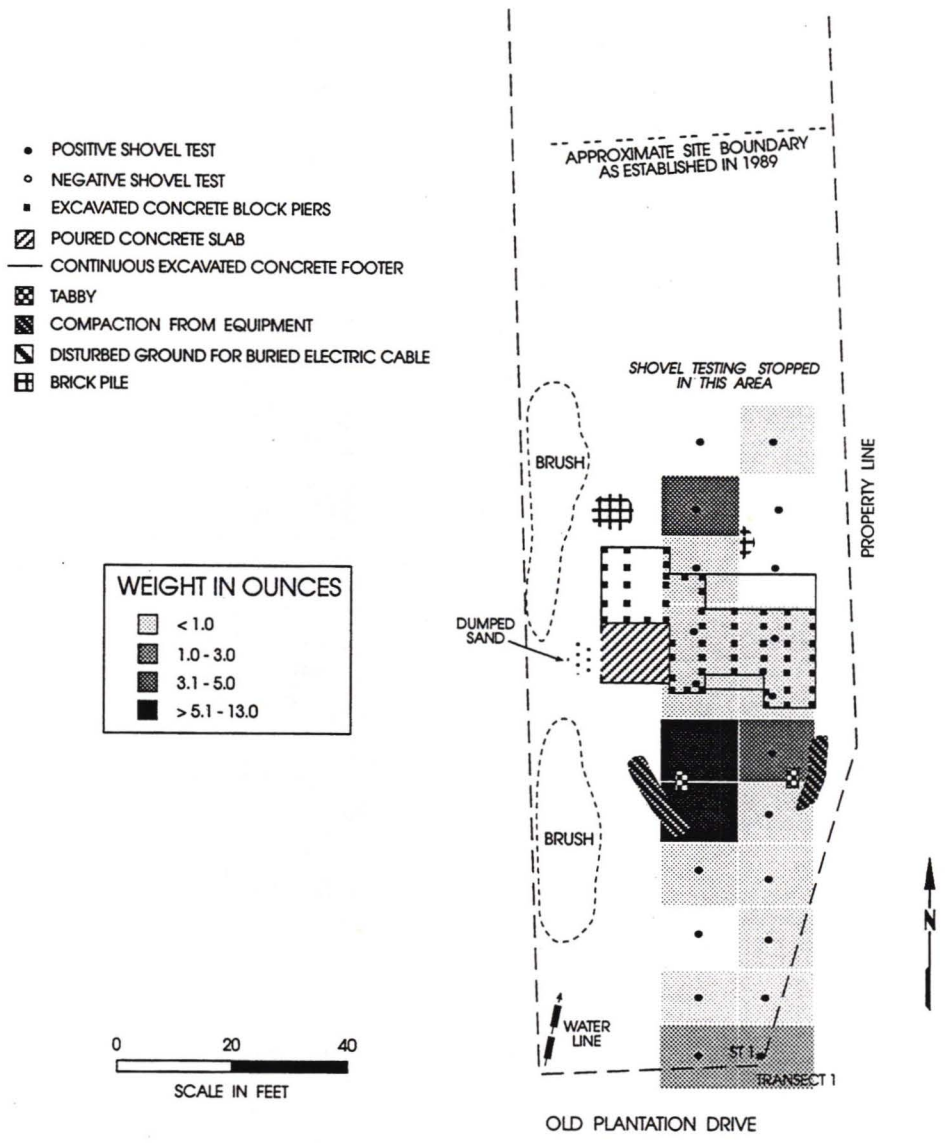


Figure 14. Brick and tabby rubble density in the tested area on the Hendrix lot at Walling Grove.

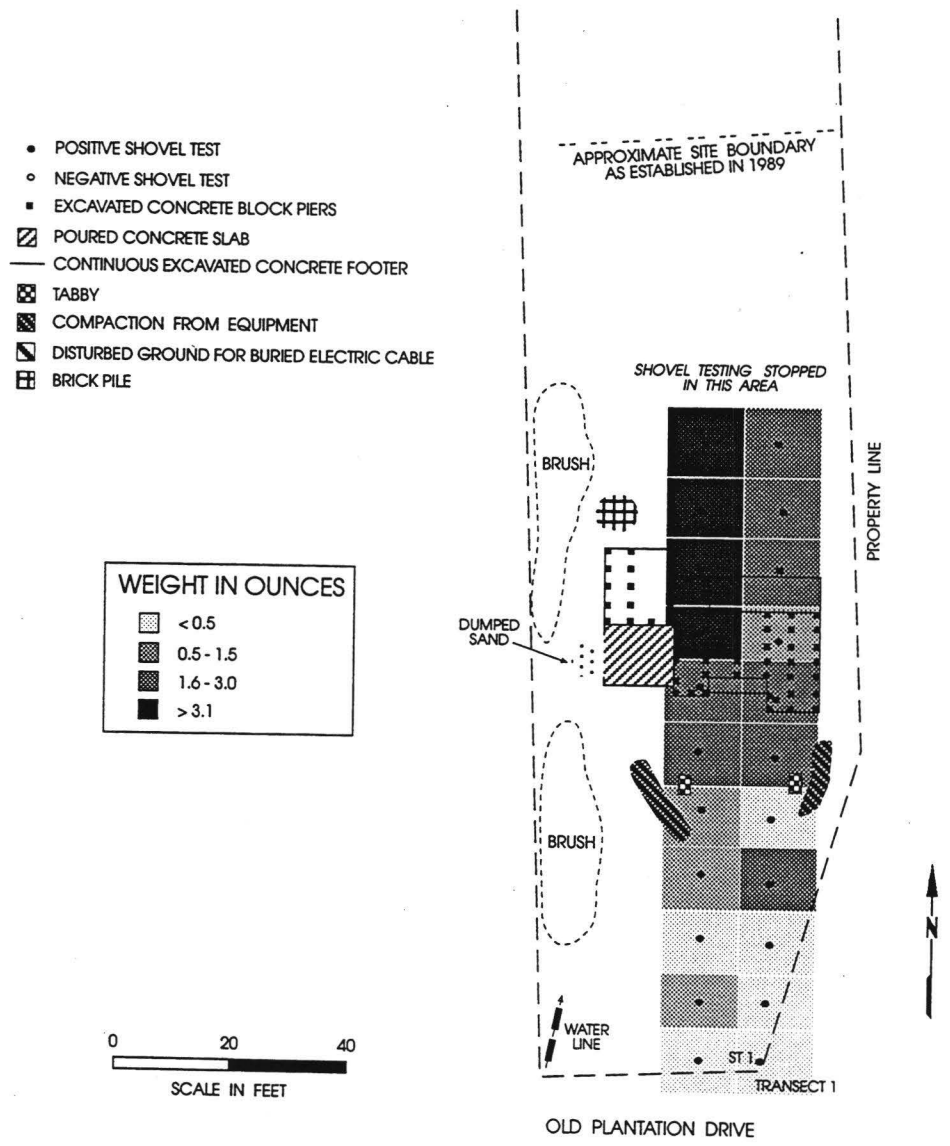


Figure 15. Shell density in the tested area on the Hendrix lot at Walling Grove.

produced a broad range of historic artifacts typical of an eighteenth and nineteenth century domestic site. Preservation at the site must be evaluated as good, since bone was found in nearly a third of the shovel tests.

Figure 14 reveals a somewhat dispersed distribution of brick and tabby. There is a relatively clear concentration in the immediate vicinity of the ruins. The association with the ruins is appropriate, since it is likely that a fairly substantial amount of rubble resulted from the two chimney falls, break up of the foundation walls, and removal of internal piers. It seems that the architectural rubble declines in density as one moves away from the main house, although there is a slight increase along the road (to the south) and just north of Mr. Hendrix's house. The meaning of these two possible concentrations cannot be discerned with the available data.

The density of shell is shown in Figure 15. This distribution suggests that shell is only modestly associated with the ruins and is, instead, concentrated in the "far rear yard," in the general area of Mr. Hendrix's house and further north. This may suggest that the rear yard was used for discard, although there are not, at present, enough data to support such a conclusion. Nevertheless, it does seem clear that shell density remains high, even far north of the main plantation house or the current construction.

CONCLUSIONS

Extent of the Site

This brief reconnaissance level study supports the original site boundaries in the vicinity of the main plantation house ruins. The shovel tests reveal dense artifact remains from Old Plantation Drive northward down the slope toward the Coosaw River. Since the tests did not continue to the previously defined site limits it is not possible to verify the exact boundary north of the ruins or the construction zone. Regardless, the boundary is ***at least an additional 40 to 60 feet north of the construction zone.***

Likewise, the additional shovel testing and surface distribution provides evidence that the site continues both to the west and the east. In fact, a neighbor to the east, Ms. Glace, has continued to pick up artifacts from her driveway (these specimens were donated to SCIAA during this brief investigation).

More than confirm the general parameters of the site, this study has also revealed that there is little substantive difference in site density in the immediate ruins area and the area to the north, in the "near rear yard," where Mr. Hendrix's has begun construction. In addition, shell densities suggest a possibility that the sloped area, even further north in the "far rear yard," may be an area of overbank deposition association with the main plantation settlement — in other words, this area may have been used to dispose of plantation trash, which is, of course, what archaeologists study to better understand plantation lifeways.

All of the data support the conclusion that artifact density is high in the vicinity of both the ruins and the current foundation construction. There is no real difference in site density between the two areas.

The construction activities have been located in an important site area clearly associated with the main house. At present it is not possible to fully understand the range of activities which may have taken place at this settlement.

Extent of the Impact

Construction related activities at the site, identified by this study, include:

- placement of underground utilities,
- application of a termiticide treatment,
- stockpiling of construction materials,
- rutting and compaction from construction traffic in the site area,
- excavation of foundation footers and piers,
- removal of a tree and grubbing out of the root ball, and
- placement of a concrete slab for the garage.

These are all the types of activities which are commonly associated with residential construction. Although these are certainly destructive of the archaeological resources, I found no evidence of unusual damage which might suggest an effort to "erase" or destroy the archaeological site.

Placement of underground utilities is currently limited to a single narrow trench along the east edge of the site for electricity (and perhaps telephone) and another along the west edge of the site for water. The damage for both is

minimal.

The termiticide treatment was apparently a drench of a pyrethin pesticide. This chemical is relatively safe and actually has a relatively short lifespan. It is unlikely that any significant chemical contamination of the archaeological resources has occurred. I do not know, however, how pyrethrins may affect chemical studies of soils, pottery, or cooking residues.

The stockpiling of construction materials was concentrated in three areas: between the two tabby blocks, to the west of the house, and to the north of the house. All are sensitive zones, although I am most concerned with the use of the area between the tabby blocks. Use of this area for stockpiling was unfortunate. Not only does it jeopardize the structural integrity of the two tabby supports, but it risks the integrity of the underlying archaeological remains. Nevertheless, my study did not reveal any evidence of permanent damage in any of these areas.

The rutting and compaction from construction vehicles was found on either side of the tabby blocks. Currently the impact is moderate, but very localized.

The foundation construction is among the more damaging activities which has taken place on the site. The trenches range about 1.0 to 1.5 foot in width and are at least 1.0 to 1..5 feet in depth. The impact is not limited to the below ground damage, but also includes the mixing of the spoil and creation of a new "construction disturbed" zone. It is likely that some exposed artifacts, especially metal and animal bone, have significantly deteriorated since the trenches were excavated.

The tree removal and grubbing of the roots is potentially the most damaging undertaking on the site. In this 675 square foot area it is likely that the site has been destroyed. Consequently, the overlying concrete slab is of relatively little consequence it is only serves to seal an already badly damaged site area.

The shovel testing reveals that the site areas between the various construction features, such as within the foundations, are in good condition. This reinforces my earlier observation that I see no evidence of willful or intentional site destruction.

At present, the halted construction has had minimal impact on the archaeological resources. My justification for this observation is that only slightly over 675 square feet are inaccessible. The rest of the site is intact and readily accessible to archaeological research (although certainly some modifications of normal excavation strategies would be necessary).

Extent of Future Impact

It is not my purpose to advocate a solution or recommend regulatory action. It is, however, important for all parties to fully understand that construction-related damage is not static — it is cumulative.

If construction continues on the current foundations the damage will include:

- plumbing within the confines of the house foundation,
- the excavation of a septic field (Walling Grove does not have city sewer facilities),
- stockpiling of construction materials, since there is no convenient off-site area for stockpiling,
- additional construction traffic rutting and compaction, since there is no access to the construction site, except through the archaeological site,
- landscaping, since the site is within the upper 1.0 to 1.5 feet — the zone of sprinkler installation, tree and shrub planting, and even tilling for grass,

- driveway construction, since there is no access to the proposed house except through the archaeological site, and

- the complete inaccessibility of the portion of the site under the house.

While steps can be taken to minimize these damages, it seems likely that virtually all of the site under the approximately 2,500 square feet footprint of the Hendrix house will be destroyed or made inaccessible. In addition, at least an additional 1,800 square feet will be situated under a driveway or be subjected to rutting and compaction. The septic field will likely impact an additional 1,000 to 2,000 square feet of the archaeological site. This losses would total about 5,300 to 6,300 square feet of the archaeological site. To this we can probably add a factor of at least 10%, or 530 to 630 square feet as unspecified losses, to allow for landscaping, construction traffic, stockpiling, and other incidental losses. I believe that throughout these figures are conservative and represent the least likely impact.

SOURCES CITED

Trinkley, Michael
1989 *An Archaeological Survey of Phase I of the Walling Grove Plantation Development, Ladys Island, Beaufort County, South Carolina*. Research Series 16. Chicora Foundation, Inc., Columbia.